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Commentary: Concomitant atrial fibrillation ablation: the forgotten procedure.

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Please submit the abbreviated legend for your Central Picture. The text box will limit you to 90 characters, spaces included NOTE: Also include in manuscript file.	Vito D. Bruno (Left) and Mustafa Zakkar (Right)

Commentary: Concomitant atrial fibrillation ablation: the forgotten procedure.

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Conflict of interest statement

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Central Message: Is concomitant atrial fibrillation ablation a procedure that should be considered in elderly patients?

Central Picture: Vito D. Bruno (Left) and Mustafa Zakkar (Right)

Should we operate on elderly patients? And, if we operated on them, should we provide them with a complete treatment of their diseases? The answers to these two questions seem obvious and we are convinced that vast majority of the cardiac surgeons would have an affirmative response to both. In reality, the problem of combined surgeries in the elderly is multifaceted: not only we have to consider operating an ageing and perhaps fragile population, but we also have to perform complex combined procedures and achieve the same results we would expect in younger patients. From the perspective of the surgical risk evaluation, this seems counterintuitive and several previous papers have shown the negative impact of age on the postoperative outcomes after cardiac surgery. Therefore, we should always carefully estimate the risk-benefits balance in these very delicate patients. And if we talk about surgical ablation of atrial fibrillation (AF), one can think that prolonging an operation to treat a “minor” problem would not be appropriate in this type of patients. But is AF really a “minor” problem? Previous studies have clearly shown that if left untreated, AF after cardiac surgery has a negative impact on life expectancy and stroke rate¹. The paper from Petersen et al² can certainly help us in deciding when to pursue the treatment of this frequently forgotten disease. First of all, it demonstrates that concomitant AF ablation can be safely performed and does not have a negative impact on the postoperative outcome even in elderly patients. There were no procedures related complications and therefore it encourages us to conduct this procedure more frequently and without reluctance, although we cannot underestimate the elevated incidence of postoperative pacemaker that the authors reported (8.5% followed by a further 2.2.% during follow up). The study did not focus on ablation associated only to mitral valve surgery but involved a wider type of concomitant surgeries including coronary artery bypass grafting (CABG) and aortic valve surgery. It is certainly interesting to note that concomitant CABG and double valve

procedures represent negative factors in terms of recurrence of AF. Particularly, while double valve surgery was independent from age, concomitant CABG had a negative impact on recurrence specifically in the elderly patients and the hazard ratio in this subgroup of patients was significantly different when adjusted per age. The authors were able to characterise the results for each specific surgery, although this comes at the cost of a more heterogeneous population and we believe this is the most important weakness of the study: the heterogeneity of the population was also associated with heterogeneity of surgical techniques and methods of long term assessment used. Therefore, these results, although interesting, need a further validation in larger and more specific studies. The use of standardised outcome measures has been previously advocated in order to compare results between different studies³: for instance, in the current study the use of implantable loop recorder during follow up was able to better detect AF, perhaps leading to further interventions, like catheter-based ablations, that might have impacted on the main outcome. Despite these limitations, the study is interesting as it focuses on the elderly patients who might be more likely to not receive this concomitant procedure. At this point someone would go even further asking why not consider elderly patients for hybrid or stand-alone surgical AF ablation? There is evidence that both techniques have shown promising results when compared with percutaneous catheter³: so why should we preclude elderly patients the advantage of a longer and healthier life? The question remains, but we believe the cardiac surgical community should focus on the treatment of AF more practically and stop considering it a minor problem that we can ignore.

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